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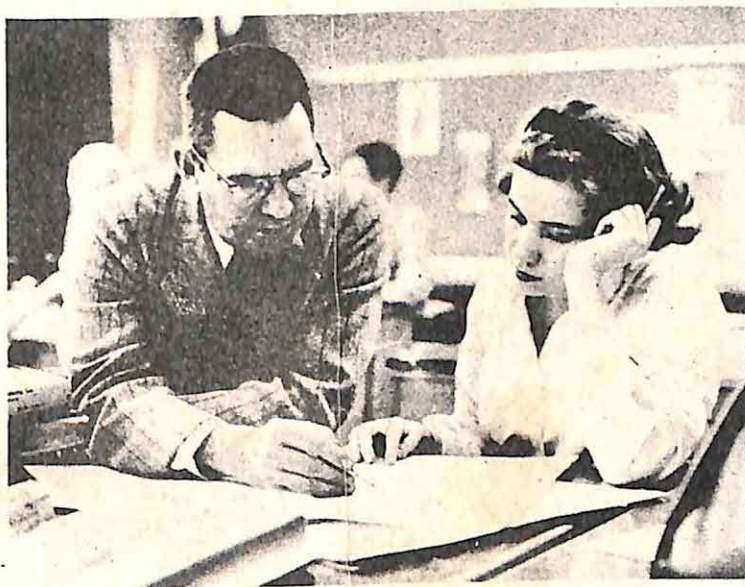
Under the editorship of
Leonard Carmichael
*Secretary, Smithsonian Institution, formerly
President, Tufts College, and Director,
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PSYCHOLOGY IN



TEACHING AND LEARNING

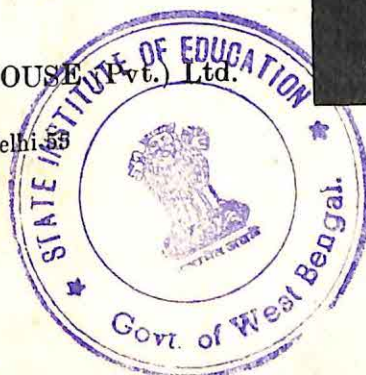


William Clark Trow
UNIVERSITY OF MICHIGAN



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fore him of different home backgrounds as well as with the wide diversity of behavioral expressions, some of which are learned and some of which are in-born, which psychologists call by the blanket word "personality."

This book makes it clear why the educator should recognize the importance of motor skills and of the communication skills of oral and written language. No one can doubt that one of the great objectives of education is to improve the thought processes and the problem-solving ability of every child in every class. The modern psychological analysis of these topics as given in this book is, therefore, especially important. Why some aspects of learning are effectively reinforced by group activity but others are best mastered by individual study is also explained in these pages. Many other factors related to the psychologist's modern knowledge of the nature of the learning process are illustrated here, as is the importance of psychology in assisting the teacher in dealing not only with pupil groups but also with parents and with the larger community.

The strength of this new book is that it takes into consideration the problems mentioned in the preceding paragraphs, and many others, and yet it is organized as a single, relatively brief, volume. The student who uses this book cannot help coming to think of the children in the educational situation as evolving, developing biological organisms who must learn both academic subject matter and also constructive attitudes toward life in a social order that is properly controlled and yet not stifling to intellectual or personal freedom and initiative.

These objectives are met in *Psychology in Teaching and Learning* because it is written by an eminent psychologist who has had long experience as a scientific contributor to modern psychology and especially to educational psychology. As this book and his previous widely used books attest, Dr. Trow is one of the leaders who have helped to bring about the salutary modern changes that are now recognized as basic in both the content and objectives of educational psychology.

LEONARD CARMICHAEL

Preface

The first course in educational psychology is generally recognized as a very important part of the professional training for teaching. The textbooks that have appeared over more than half a century¹ have revealed its dynamic nature, incorporating as they have successive increments of knowledge and changing theories. Committees of the National Society of College Teachers of Education and of the American Psychological Association, on both of which the author has served for a number of years, have offered many valuable suggestions,² and the work is still going on.

From the psychological side, the course is viewed as one which should emphasize psychological theory and experimentation, and tend toward a systematic organization of content. From the educational side, it is viewed as one which should emphasize teaching needs, with a tendency in some quarters to settle for halfway measures, such as a course in mental hygiene or child development. The criticism of the first approach is that "it doesn't function," and of the second that "it is not psychology." Both are severe criticisms.

If the course does not function, it means that the textbook and the instructor have not succeeded in clarifying the relationships between the psychological facts and theories presented and the day-to-day activities of the teacher. When the students have learned the facts and theories they can quite legitimately ask, "So what?" This can be a very annoying question, particularly for a young instructor only recently removed from his graduate study in which learning about the behavior of rats and monkeys and studying learning theory, personality theory, and other kinds of theory have been ends in themselves. But it is a perfectly proper question for a course that is a part of a student's professional training. If the instructor cannot make the connection between his course and what the teacher does or should do, it seems a little too much to expect of the inexperienced student.

¹ William Clark Trow and Glenn M. Blair, "Organization of Content," *Educational Psychology in Teacher Education*. Ann Arbor: National Society of College Teachers of Education, 1953, pp. 27-48.

² William Clark Trow, "Educational Psychology — Individual or Social?" *Journal of Consulting Psychology*, 5 (November-December 1941), 265-69; "Educational Psychology Charts a Course," *Journal of Educational Psychology*, 40 (May 1949), 285-94.

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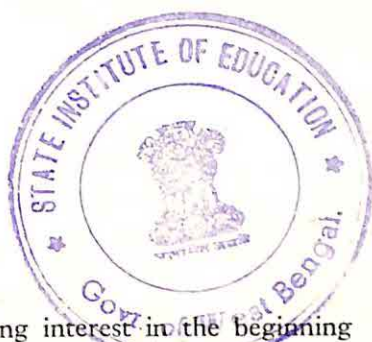
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Editor's introduction



The present volume reflects the author's life-long interest in the beginning course in educational psychology, but instead of making another revision of his earlier volumes, he has chosen to present a new and refreshing approach. It also reflects the developments in psychological knowledge applicable to education that have taken place in recent years; and yet it does not neglect the basic and tested psychological principles that have long been recognized as fundamental for the student of educational psychology. To put it in another way, this new volume, *Psychology in Teaching and Learning*, has been prepared by a distinguished educational psychologist to emphasize modern facts and theories, but this has been done by one who has a veteran's knowledge of the topics that should be treated in a first course. It is at once theoretically and scientifically sound and, also, practical and useful for the prospective teacher and for the teacher in service.

Dr. Trow recognizes that every good teacher, at least in some respects, is a psychologist. Some teachers may not know this, or a few may even wish to deny it; but when psychology is presented as it is in this book, it is clear that the scientific study of mental life provides useful and essential insights that are basic in solving many of the most perplexing problems of education.

The author realizes, too, that every good teacher understands and deals with learners who are alone and, also, with groups of individuals. In other words, in teaching a class the instructor must not only know how to impart knowledge but also how to stimulate the positive attitudes that are essential in dynamic classroom instruction. Psychology can help the teacher master the ways in which a class can be stimulated to effective and constructive group activity and calmed and made quietly attentive and ready for detailed formal instruction.

This book clearly points out that the teacher should recognize the ways in which children are similar and thus be able to deal effectively with entire groups at once. He must likewise be on the alert to see the differences that exist among the children in a classroom. Psychology properly presented as it is in this volume will help the teacher recognize differences in physical characteristics, in academic and other aptitudes, and in the ability to achieve, in varying degrees, true mastery of school work.

The alert class director is ready to cope with the reflections that he sees be-

Likewise, if the course does not include what psychologists view as psychology, either it is misnamed or psychology is not as useful or necessary as it is supposed to be in teaching. However, the ramifications of psychology are wide, ranging from physiological to social, and selections must be made, for everything cannot be included. Judgments differ as to what is important for the first course.

In this volume I have followed a somewhat different plan of organization and selection from that ordinarily found. Furthermore, I have sought to formulate a number of empirical principles derived from research and from experience and have indicated rather specific ways in which they apply in an educational setting. I therefore do not regard this book as a revision of my *Educational Psychology*, first published in 1931 and revised in 1950, and so I have given it a new title more in keeping with these innovations.

In *Psychology in Teaching and Learning* the successive chapters are not so much systematically arranged topics in educational psychology as they are a series of educational situations, that is, recognizable conditions and patterns of events that call for psychological understanding and handling. These situations provide the occasion for presenting the appropriate psychological facts needed to understand them. The order of presentation of the situations is much the same as the one in which the beginning teacher is likely to meet them, starting with the class as an audience, moving on through the discovery of individual differences to problems of learning and of the manipulation of group processes. This sequence provides a meaningful progression by which the student can in imagination follow his own future teaching progress. The arrangement further permits a progression from the larger molar patterns of behavior as they are likely to be first observed to the smaller molecular patterns which require more detailed analysis, and which depend in part for their explanation on what has preceded.

The empirical principles of educational psychology follow this order of treatment and are made more explicit than is usual. This setup has an element of danger, since a tidier presentation of principles would be possible with a systematic organization. But since the object is to have the students understand and use the principles in their various teaching roles, I believe it is a better arrangement. Eclecticism and varying psychological and educational emphases will necessarily characterize such principles until the day when theory becomes acceptably unified.

The "So what?" question I have sought to answer throughout by statements, some fairly concrete, some necessarily general, as to what the teacher should be expected to *do*. It is of course impossible to relate these suggestions directly to all the different subjects and to the different age levels of the pupils. But hopefully, the students' ability to generalize, supplemented by later courses in

special methods and experience in practice teaching, will permit them to follow through with more specific directions for specific situations.

That the effectiveness of the plan is largely a matter of faith can hardly be gainsaid. However, the testimony of the undergraduate students who used this book in its lithographed form, without benefit of illustrations, index, footnotes, or glossary, rated it high in interest and practicality. And my colleague Finley Carpenter found that teachers in service who had read it listed significantly more possible solutions to actual problems they had previously not dealt with adequately than they had before reading it. Perhaps later studies employing comparable ingenuity will further confirm the faith.

Undoubtedly a prerequisite course in psychology would provide an enriched background for what is here presented, though it is not essential. Those who have had such a course will recognize familiar material, but they are likely to realize that they need both a review of pertinent details, and the new emphasis on educational implications.

Lastly, I believe that the large, self-contained textbook can advantageously give way to a smaller book, and that the principle of self-selection can be invoked to permit students and instructors to supplement the shorter text with a choice of historical, theoretical, experimental, and other sources now readily available in books of readings (see list, page xv). This will permit that adaptation to individual interests and abilities which educational psychologists have long advocated for others. Those whose psychological background is more than adequate will welcome some of the more advanced selections, while others will be interested in the helpful supplementation the readings provide. The annotated references supplied at the end of each chapter ("Related Articles in Books of Readings"), listing specific authors and the titles of their respective articles, were selected in part on the basis of student ratings of interest and value.

Some questions and topics for study follow each chapter. In addition, many helpful questions and suggestions are to be found in the *Student's Manual*, a separate volume prepared for those using this text.

A glossary of technical terms is provided at the end of the book in order to dispense with the formality of defining terms as they appear in the text, since some are already known and many are introduced with their common meanings before their more technical meanings are needed. A degree sign (°) after a term in italic type indicates that this is an important concept and that a definition appears in the glossary.

WILLIAM CLARK TROW

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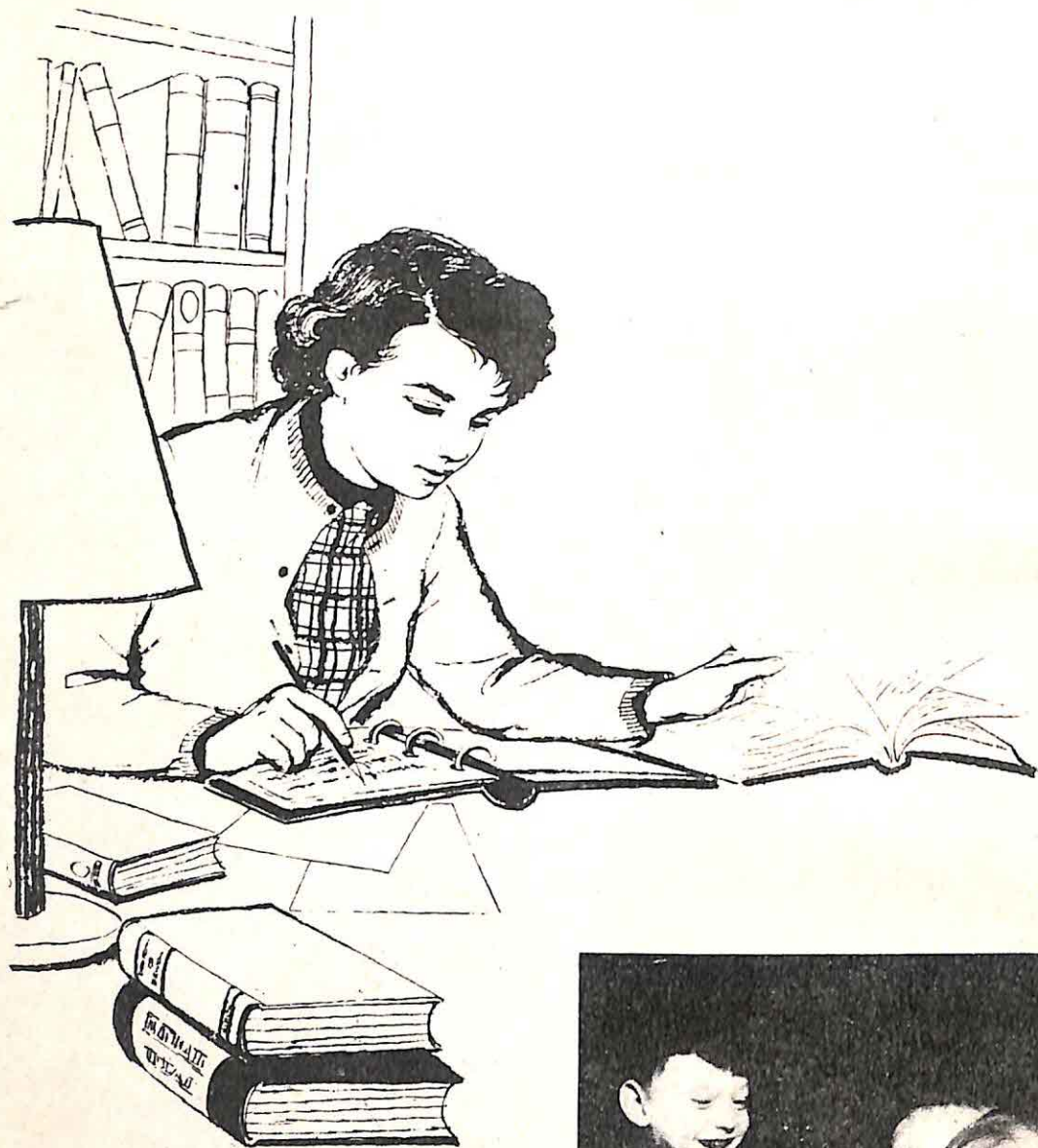
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Psychology in Teaching and Learning



Introduction: what is educational psychology?

This may be the first professional course you have taken, the first in which the objective was not merely to know about and understand something, like history or physics, or perhaps to appreciate and enjoy something, like music or art. Professional courses have these objectives too, but to them something is added, i.e., the expectation that those who take them will be able to *do something*, that they will become operators, sufficiently skilled to be paid by society for what they can do. This is what is expected in law, medicine, nursing, public health, and in the other professions.

Some have said that while training is necessary in these professions it is not needed in education, that "if you know a thing you can teach it." Your own experience as a college student has probably supplied sufficient evidence to make you doubt the truth of this dictum. On the other hand, if mastery of subject matter, necessary as it is, is not enough, neither is a mere knowledge of what is taught in professional courses. They do not guarantee good teaching either. But at least it can be hoped that they will reduce the number of embarrassing blunders of beginners, and they make good teaching much more probable.

The teacher-training program

Educational psychology. This course deals with the role that psychology plays in teaching and learning. Since it is only a part of the

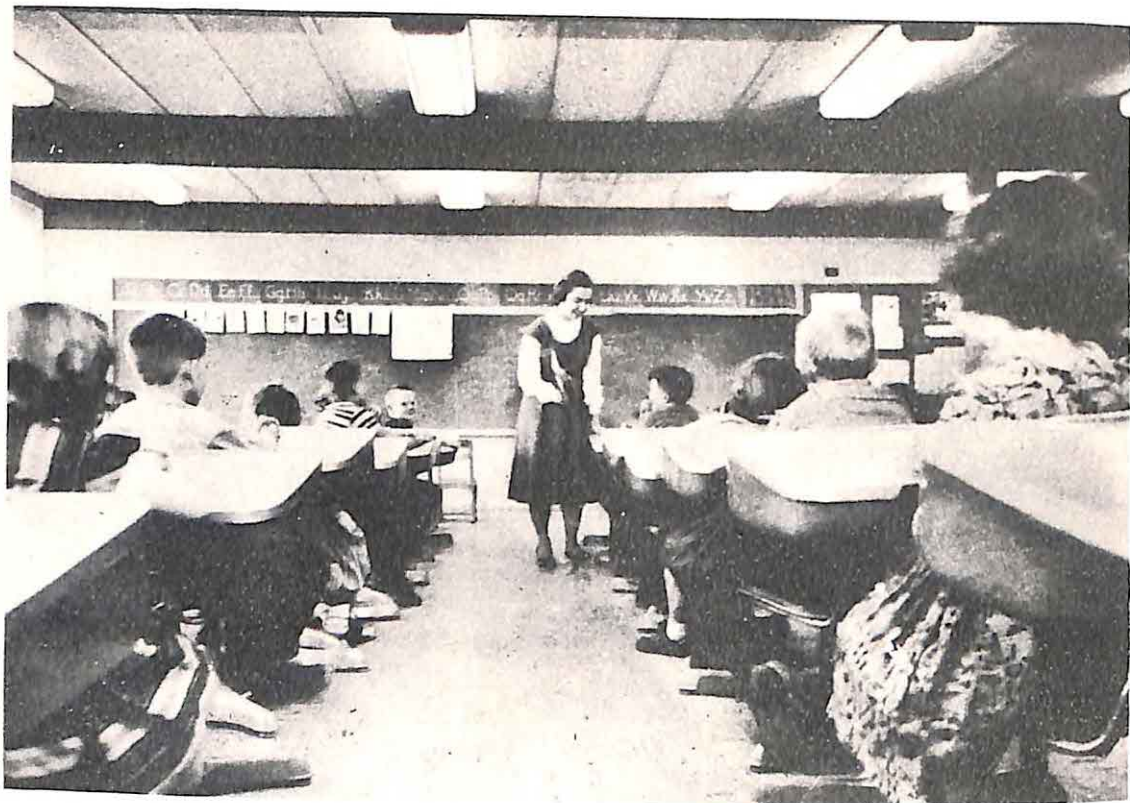


Figure 1.1 The Learner's View of Education

He is primarily concerned with himself and has little or no responsibility for the other students. (Courtesy American Seating Co.)

program of teacher training, you naturally want to know at the outset what it is going to be about, and what should and should not be expected of it. The same kind of preliminary understanding is desirable when undertaking any new enterprise. A friend of mine said he was going on an automobile trip with the family, and I asked him if he planned to take in the Great Smokies on the way. He looked a little vague until I explained that they are neither cigars nor volcanoes but nice friendly mountains. I showed him on a map where they are located in relation to the route he planned to travel. I told him about the scenery and the trails, the fishing and the shops, and about Cade's Cove and the Chippewa Indians. I pointed out that there was no snow on the mountains in sum-



Figure 1.2 The Teacher's View of Education

She is responsible for all the pupils, responsible for helping them become what they are capable of becoming. (Courtesy American Seating Co.)

mer and no surf bathing, and there were no night clubs or symphony concerts. We go to different places — and take different courses — for different purposes. And for both we want to have some idea about where we are going before we start.

For a course in educational psychology, you are not completely in the dark. Since you have been to school for a dozen or more years, you already know something about what education is, even though you have only had what has been called a worm's-eye view from the under side, or rather from the learner's side, of the desk (see Figure 1.1). From the teacher's side, it is different and much more complicated (see Figure 1.2). You perhaps think of it largely as maintaining control, or "discipline,"

as assigning lessons and checking up on the students to see whether they have done their work. True, these are some of the means employed to obtain certain educational objectives, but the ends sought give a better idea of what it is. *Education*¹ has been defined in many ways, but from the psychological point of view we can think of it as the process of *enabling children and youth to develop their potentialities in individually and socially desirable ways.*

And as for psychology, whether or not you have had any courses in it, you probably know that it is *the scientific study of behavior*, with primary emphasis on human *behavior*^o, although that of rats, pigeons, ants, monkeys, and other lower organisms has also been investigated. The objective is to be able to predict what individual organisms will do under certain circumstances. The better one knows a *science*^o, whether it is psychology or any other, the surer he is of what will happen, under varying conditions, to the *data*^o with which his science deals.

With these two definitions it is natural to surmise that educational psychology is *psychological knowledge applied to educational problems*. Thus psychology would be the basic science underlying education as a professional activity — the same relation, for example, that physiology has to the practice of medicine. This is all right, so far as it goes, but it does not go quite far enough. True, psychological knowledge can be *applied*^o to the solution of practical educational problems. Psychological knowledge is being used, and increased, wherever behavior is being scientifically observed, predicted, and controlled, whether in the rat laboratory or in the schoolroom. Thus educational psychology is more satisfactorily viewed as *psychology in an educational setting*. That is why the title of this book is *Psychology in Teaching and Learning*. We are actually concerned with all the psychological processes found in educational situations, and with the techniques that can be used for studying them. Figure 1.3, then, is a kind of map, not of the Great Smokies, but of the location of educational psychology (where the circles overlap), showing the topics or problems with which it is chiefly concerned, all of which are of both psychological and educational significance.

¹ The degree sign (°) indicates words or phrases whose technical meanings are given in the Glossary at the end of this book. A word or an entire phrase defined in the Glossary appears in the text in italics followed by a degree sign.

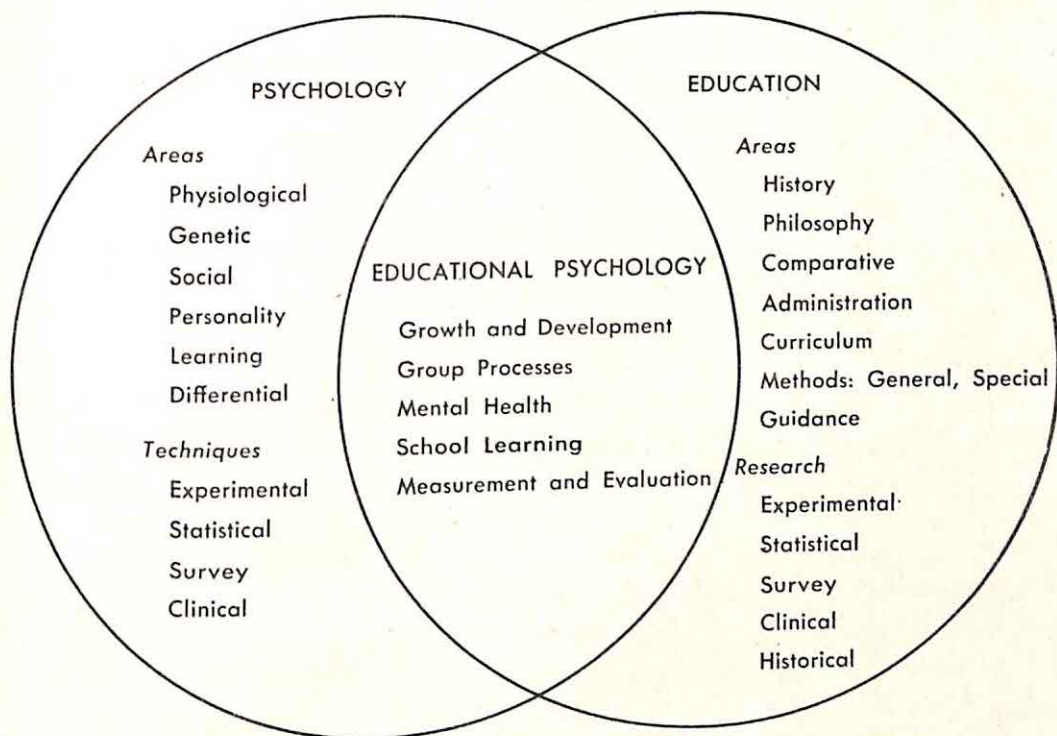


Figure 1.3 Psychology in an Educational Setting

The area where the circles overlap indicates the psychological aspects of the program of teacher training.

The items in the two circles do not include everything that might be listed, but they provide a kind of overview of the program of professional training and the part that psychology plays in it. Note that the content *subjects*^o are not included — history, physics, art, and so on. As a rule such *content*^o is supplied not in departments and schools of education but in liberal arts departments and colleges. If teachers are deficient in these subject-matter areas, it is to the content departments they must look for added knowledge and understanding.

The function of teacher training. We can now add to our definition of education in such a way as to describe the function of teacher training, which is to help prospective (and practicing) teachers learn^o to say and do the things that will enable children and youth to develop^o their differing potentialities in individually and socially desirable ways.

The parts of this definition of function need to be considered separately so that you will know better what to expect, and what will be expected of you, and so that you will have a good general idea of what the contribution of psychology to teaching and learning really is.

“... *To help prospective (and practicing) teachers learn...*” Most students in training are prospective teachers, although some may for one reason or another never teach; as parents and citizens, however, such individuals can profit by the understanding of the educational enterprise that this course provides. All future teachers need to be introduced to the complexities of modern education, not only to know what it is all about and to reduce the number of mistakes they might otherwise make, but also, from another point of view, to insure that the instruction to which their students are subjected, and which is paid for largely through public taxation, is at least minimally competent. Many teachers in service continue their training in order to make up for earlier deficiencies and to improve their skills and understanding. Although perfection in an art is never attained, with effort it can be more closely approached. In any case, you as a student will have to do your own learning. You are undergoing the training. It is your nervous and muscular system and the pattern of your thoughts and actions that need to be changed. Your instructor can help you, but it is what you can learn that will make the difference in your future competence as a teacher.

For convenience, the program of training can be divided into three parts:

1. Social foundations of education. Courses in this area trace the philosophies of education and the theories concerning objectives and practices as they have developed in other periods of time (history of education) and in other cultures (comparative education).

2. Psychological foundations of education. Courses in this area report the findings about human *personality*^o and learning, *growth*^o, and development, in their relation to educational situations.

3. Methods and practice. Courses in this area of “how to do it” focus on actual teaching and administration at different age levels and in different school subjects. Ideally they build on the social and psychological foundations.

Methods and practice courses sometimes seem enticingly “practical”

to the beginner, who is likely to view the others as only "theoretical" and without any clear-cut relation to what he feels will be expected of him on the job. Yet the answers to the questions "Why?" and "How?" are needed in order to find the answers to the "What?" questions. For education is not a skilled trade consisting of a series of specific acts that are to be performed in the same way. It is a profession in which decisions have to be made. And the background provided in the philosophical and psychological foundations helps the teacher decide what to do in practical situations.

More often than not, it is impossible to state specifically what should be said or done in a certain kind of educational situation. Instead, a general *principle*° will need to be used, or perhaps a choice will have to be made between two or more principles according to the circumstances of the case. Some of these principles are enumerated in this book. Most of them, and many of their implications, have passed through a process beginning with common sense (which is not very common and often mistaken), through carefully formulated *hypotheses*° to be tested, to verification by techniques of psychological research, including a try-out and perhaps subsequent modifications in the educational setting. Like medical cures, many such principles have been discarded in the process, and others have been retained. In any case, the principles are necessarily general propositions and lack the mathematical exactness and specificity to be found in the physical sciences. This is only in part because psychology is a relatively young science. The main reason lies in the fact that its data, the facts of human behavior, are much more variable and complex than are those of the physical sciences.

"... *To say and do...*" What to say and how to say it, what to do and how to do it — these words point to the special kinds of behavior a teacher must learn. Some teachers find the task easy; others for various reasons find it very difficult. Probably the chief reason for the difficulty is that *genetic*° factors involving *intelligence*° and personality intrude and interfere with the acquisition of new skills. Then too, earlier experiences have tended to form *attitudes*° and *habits*° which also intrude and make the more appropriate behavior difficult if not impossible to acquire.

Although techniques of teacher training are under constant scrutiny

and study, it is only natural that the familiar devices of college instruction are used — lectures, textbooks, readings, workbooks, group discussions, individual and group *projects*°, and sometimes audio-visual *aids*° and visits to schools and other institutions. The college teacher may employ a “within-the-class” method, in which he plays a participant role with the students, but he is more likely to be the “outside-the-class” authority and helper. Unless he has unusual histrionic ability, he will not demonstrate the various kinds of behavior he discusses. For example, he will probably not sit on the floor with a circle of students around him to demonstrate group formation in kindergarten story reading. But he will undoubtedly try to help those whose personality characteristics or social and educational background make it difficult for them to acquire the kind of classroom behavior they will need.

“... *The things that will enable children and youth to develop.* . . .” This part of the definition refers to the factor of *student achievement*°, the outcome of the educational process. Pupils must learn to do what they have never done before, and learn to do better what they can already do. If they do not learn, the school is not a school at all but a custodial institution. And if instruction is not reasonably efficient and effective, money and time are being squandered.

It is here that psychological *research*° becomes especially important, for it provides many of the basic facts about how individuals are changed as a result of their actions and experiences. The facts that have been discovered about human nature help educators to select for their pupils those activities that will lead to more or less lasting brain modification and hence establish the new skills and types of behavior that are desired and needed.

“... *Their differing potentialities.* . . .” This is the factor of *individual differences*. Children and youth have been found to differ widely in their interests, abilities, aptitudes, and needs, and consequently in what they can and will become. All must be helped in various ways. In order to discover these differences, group intelligence and achievement *tests*° are given routinely in most schools, and individual tests of various kinds are administered by *psychometrists*° for special purposes. These tests have been developed and *standardized*° by research workers. Together they provide valuable data on the basis of which, along with such other

information as is available, teachers and administrators can make more intelligent decisions than would otherwise be possible concerning the educational *treatment*° that should be provided for different pupils. Since students must be taught in groups, the adaptation of instruction to individual differences constitutes one of the major problems of teaching.

“ . . . *In individually and socially desirable ways.*” This is the philosophical factor of educational *objectives*°. *Curriculum*° and *method*° must be such that they meet the needs of children and young people and contribute to the welfare and continuity of the supporting society.

There are many differences of opinion as to ways and means, and as to form and content, for taking all of these factors into account. New facts are discovered, new techniques evolve, and new conditions arise which produce changes in the educational program over the years. But through them all, the expectation is that the operator — that is, the teacher or administrator — in dealing with the educational situations that arise, will be able to think and act psychologically.

Thinking and acting psychologically

What does it mean to think and act psychologically? First, consider two things that it does *not* mean. It does not mean merely that you know about psychology, or even that you are able to cite experiments relating to this or that educational problem, although that is a part of it. Neither does it mean that you are now to forget what psychology you have learned and do “what comes naturally,” what you feel like doing at the time — give a pupil a spanking, for example, because you feel like giving him a spanking!

What, then, does it mean to think and act psychologically? First, it means to *perceive*° situations *objectively*, and this is not easy. Educational situations are made up of groups of pupils in classrooms or on the playground, individual pupils studying or reciting, and often adults with whom you will confer — fellow faculty members, parents, or employees of referral agencies — in short, people or groups of people behaving in whatever ways they behave, with whom the teacher comes in contact on

the job. He must perceive these situations not as a parent would, favoring his own child, though the child's welfare will be his chief concern; nor as an aunt or uncle currying the favor of younger relatives and perhaps critical of their intelligence and upbringing, though these and other factors need to be considered; nor as a moralist looking for conduct that is right and wrong and dealing out punishments and rewards accordingly, though the child must learn to do what is right. Instead, he must view educational situations impersonally, as examples of human behavior that he recognizes, as behavior which is *caused*° and which must be dealt with in such ways as will best promote the learning and development of the pupils in his charge.

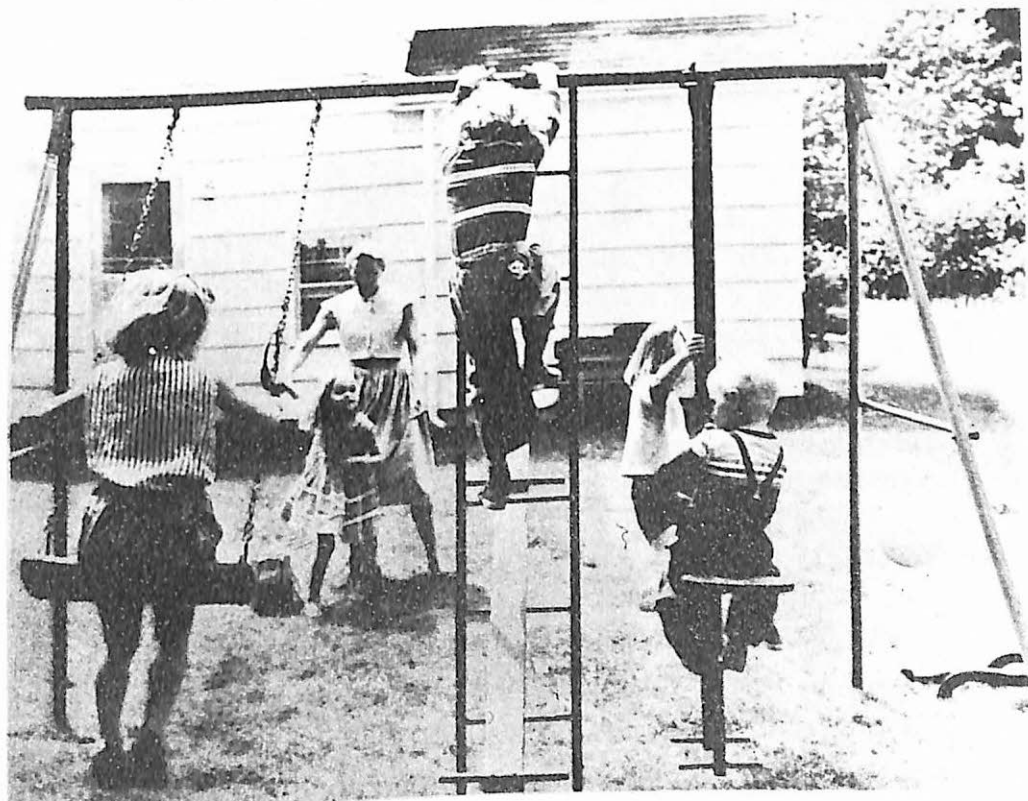
Second, to think and act psychologically means to *perceive oneself objectively*, and this is even more difficult. What is the nature of a man's own personality as he himself sees it, or, in psychological terms, what is the nature of his *self-image*°? And how does this compare with the way he appears to others? When you hear someone say, "I am a reasonable man, but . . .," you know he is responding not reasonably but emotionally. Does one teacher think of himself as justifiably firm in his demands when he is actually morbidly punitive, perhaps *compensating*° for his feelings of *inferiority*°? And does another perceive herself as kind to her pupils when she is exacting from them the affection she cannot find elsewhere? Instead of supplying the environmental support some pupils need, such teachers without realizing it act only to satisfy their own desire to gain attention and applause, or to dominate.

Then third, there is a combination of the first two points: thinking and acting psychologically means *perceiving oneself in relation to the situation* or as part of it. If a teacher observes his class through a one-way screen°, he usually finds that the pupils do not behave in the same way as they do when he is in the room. And the same child will behave one way in one teacher's classroom and quite differently in another's. What is the nature of the difference when a certain teacher is added to the situation? For example, the teacher may "take things personally" and react accordingly, not realizing that what the pupils do is not in response to himself as a person but only to what he says and does, which may not be "himself" at all but only an indication of his lack of teaching skill.

And last, in consequence of a clearer perception of educational situations, and of himself as a part of them, the teacher, in order to think and act psychologically, can learn to say and do what will cause his pupils to respond in ways that are in accord with the school's objectives. Untrained persons are likely to see in educational situations only the surface manifestations of behavior and to perceive them in traditional ways, or to see only distortions resulting from their emotional or cultural bias°, and act accordingly. Fortunately, many educational situations are similar to those of ordinary life, so that most beginning teachers do not have to acquire a whole new repertory of skills to deal with them. Habits of common courtesy would be an example, but even these are sometimes forgotten amid the *frustrations*° of the school day. Perhaps it

Figure 1.4 Children Playing at Home

When they are called upon to supervise children on the school playground teachers draw upon their earlier experience of playing with children at home. (Courtesy of the New York Life Insurance Company.)



can be said that the teacher is thinking and acting psychologically when he is actually helping young people to perceive more clearly the situations which confront *them*, and to learn to make their own appropriate responses. (See Figure 1.4.)

The plan of this book

The teacher's task probably seems more complex now than it did when you started to read this chapter. Even though the dictum "If you know a thing you can teach it" then seemed sensible, it perhaps has taken on a hollow sound like a bell with a crack in it. The teacher's task is now seen to be made up of many roles, not merely keeping order and teaching subject matter, important as these are. It is nothing less than helping children and young people to grow into normal, competent human beings, *helping them to become what they are capable of becoming*. Our happiness as well as theirs, and the happiness of those who come after us, depends largely on how well the teaching job is done. No one knows all the answers, but many of them are known, and it is hoped that this book will provide a beginning.

In it, various educational situations are indicated and described as they may be perceived psychologically, beginning with the first class meetings. A teacher first sees his class as a whole, as a largely undifferentiated group of children or young people who are forming their opinions of the teacher, and who must be guided along the path of learning. Various situations present themselves in these circumstances, so Unit One describes some of them and points out things the teacher, on the basis of his psychological knowledge, will be expected to do about them.

Gradually pupils with various kinds of problems and difficulties begin to be differentiated from the rest. Ways of identifying these pupils and their problems are discussed in Unit Two with suggestions again of what to do about them. In a sense, all this is background. Pupils are in school to learn. So in Unit Three is described the nature of the skills to be acquired, the learning difficulties they present, and the teacher's consequent responsibilities. In Unit Four the dynamic interrelationships of pupil and teacher groups — often a neglected area of teacher preparation — are briefly elaborated. It is confidently expected that those who com-

plete the course not only will have a good grounding in educational psychology as such, but will also be able to appreciate the nature of psychological problems in educational practice and will have some very good ideas of what to do about them.

Summary

Professional competence in teaching requires preparatory training as it does in other professions. Educational psychology, as a part of that training, is the study of psychology in an educational setting. But professional training calls not only for knowledge and understanding but also for the ability to do, to render remunerable service. Since teaching, based though it is on scientific research, is an art rather than a skilled trade, a knowledge of underlying principles is needed, on the basis of which decisions may be made and specific actions taken. The prospective teacher must learn to think and act psychologically, viewing himself and the educational situations with which he deals, not personally or emotionally, but objectively and professionally.

Questions and topics for study

1. Do you remember some of the less academically competent and less well-adjusted pupils in your elementary or high school classes? How aware were you of the nature of their problems or of what was done about them? Cite an example.
2. How certain are you of the following: (a) If you drop something, it will fall toward the earth. (b) If you reason with children about their undesirable conduct, they will behave better thereafter. (c) If you tell pupils something, they will remember it? List some conditions (or variables) which, if present, might make the truth of these generalizations (or hypotheses) more probable.
3. Whether they realize it or not, teachers must decide what to say or do in specific cases using as a basis their predictions derived from general hypotheses and specific variables. In view of your answer to Question 2,

above, how do you think they can learn to make more accurate predictions and hence wiser decisions?

4. The words "knowledge" and "understanding" were used in this chapter. Can you differentiate their meanings?
5. A teacher is sometimes referred to as a "change agent." What implications does this term have that are different from the usual implications of the word "teacher"?

Related articles in books of readings

(See page xv for the list of books of readings referred to.)

DANIEL

- Conant: "The Scientist in Our Unique Society," p. 2.
Hildebrand: "How Scientists Work and Think," p. 21.
Vinake: "The Basic Postulates of Psychology," p. 41.

LOREE

- Tyler: "The Curriculum — Then and Now," p. 15.
Tyler: "Modern Aspects of Evaluation," p. 334.
Bloom: "Educational Objectives and Curriculum Development," p. 336.

Further reading

A number of textbooks in educational psychology are written with a somewhat different point of view from that of the present writer. A few are listed below; their first chapters may be interesting as an introduction, and some of the later chapters can also profitably be read to supplement what is presented in this book.

Blair, Glenn M., Jones, R. Stewart, and Simpson, Ray H. *Educational Psychology*. New York: The Macmillan Co., 1954.

Cronbach, Lee J. *Educational Psychology*. New York: Harcourt, Brace and Co., 1954.

Garrison, Karl C., and Gray, J. Stanley. *Educational Psychology*. New York: Appleton-Century-Crofts, 1955.

McDonald, Frederick J. *Educational Psychology*. San Francisco: Wadsworth Publishing Co., 1959.

Morse, William C., and Wingo, G. Max. *Psychology and Teaching*. Chicago: Scott, Foresman and Co., 1955.

- Phillips, Beeman M., Duke, Ralph L., and De Vault, M. Vere. *Psychology at Work in the Elementary School Classroom*. New York: Harper & Brothers, 1960.
- Remmers, H. H., Ryden, Einar R., and Morgan, Clellen L. *Introduction to Educational Psychology*. New York: Harper & Brothers, 1954.
- Smith, Henry P. *Psychology in Teaching*. Englewood Cliffs (N.J.): Prentice-Hall, 1954.
- Stroud, James B. *Psychology of Education*. New York: Longmans, Green and Co., 2nd ed., 1956.
- Thompson, George G., Gardner, Eric F., and DiVesta, Francis J. *Educational Psychology*. New York: Appleton-Century-Crofts, 1959.
- Trow, William Clark. *Educational Psychology*. Boston: Houghton Mifflin Co., 2nd ed., 1950.

UNIT ONE



The teacher relates to the class as a whole

When the teacher meets his first class, he finds himself on the opposite side of the desk from where he has sat as a pupil or student for the past sixteen years or so. His practice teaching may have accustomed him somewhat to the position "up in front." But now he is actually in charge. He is on what some teachers refer to as "the firing line," though it is not usually that dangerous. He is perhaps thinking to himself, "Well, here I am, no longer the pupil to be bored or inspired by a teacher. I am the teacher now, the one who will bore or inspire my pupils!" And as he sees the young people looking him over with the same practiced eye with which he was accustomed to size up his new teachers, he may say to himself, "This is it," as he starts in hopefully on the year's work.

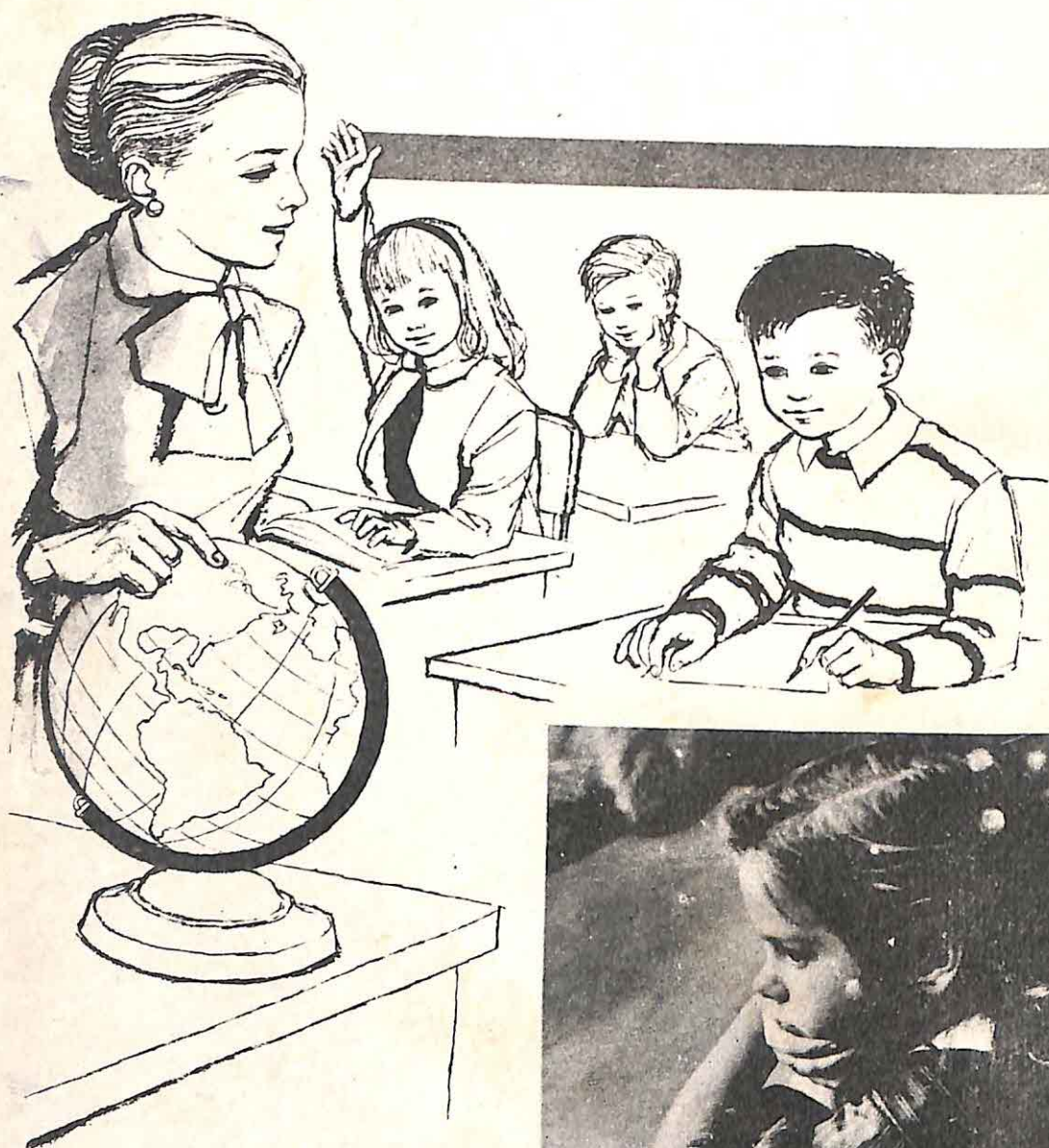
The teacher first sees his class as a small audience. Gradually he learns to distinguish individuals. Throughout the year, he will often explain things to the class as a whole, show them films, answer questions and give assignments.

In this unit we shall examine three problems of the teacher in dealing with the class as a whole and consider what can be done about them:

Class attitudes toward the teacher

Getting the class started

Stimulating class activities

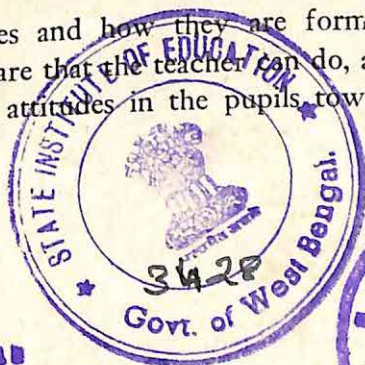


Teacher personality and class attitudes

When the pupils go home after their first day of school, the parents of many of them will ask, "And how do you like your new teacher?" All through the year they will develop favorable or unfavorable attitudes, not only toward their teachers but also toward their school experiences. When the attitudes are favorable, everyone is happier than when they are unfavorable, and there is more learning. Although it is hard for some teachers to face the fact, the pupils' attitudes depend largely on the teacher himself, on what he says and what he does. More than most workers, he must be able to "get along with people," especially pupils. Or to use more psychological language, he must be able to relate to them. The personal relationship of teacher and pupils is the first educational situation to be considered:

SITUATION 1: *The attitude of the class toward the teacher: favorable, passive, or hostile.*

After looking into the nature of attitudes and how they are formed, we shall find out what some of the things are that the teacher can do, and avoid doing, in order to create favorable attitudes in the pupils toward himself and toward their work.



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What are attitudes?

When a person says "I like" or "I don't like" somebody or something, he is expressing an *attitude*^o. Or he may say that he agrees or does not agree with some proposition—for example, that the Democrats (or Republicans) are always right, or nursery schools are unnecessary, or a certain person is a menace. The Thurstone attitude scales¹ are built on the principle of agreement or disagreement with propositions, and each presents twenty or thirty such propositions on which the person being rated checks the ones with which he agrees. In constructing the scale^o, a dozen or so *judges*^o select these propositions from a large number of statements that have been collected and that are *for*, more or less *neutral* toward, or *against* some *ethnic group*^o, institution, or the like. The judges are asked to sort the statements into eleven piles ranging from extremely favorable to extremely unfavorable. If the judges agree that a statement should be placed at about the same point on the scale, it makes a good *item*^o, and twenty or thirty such items scattered along the scale are then listed in random order. The *median*^o or middle position of the items anyone checks as those he agrees with indicates his attitude. It has been found that the *average*^o of the attitudes of a group of pupils can be changed to more or less favorable even by a motion picture, but that after a few days it tends to move back toward its original position.

Thus, not only the direction of attitudes but also their intensity can be measured, depending on whether the *subjects*^o mark the items that are located nearer the upper or nearer the lower end of the scale.

Direction and intensity of attitude can also be rated directly—say, on a scale from one to five: *dislike very much*, *dislike*, *indifferent*, *like*, *like very much*. These positions can be located at equal distances on a straight line to make what is called a *graphic rating scale*^o.

The intensity of attitude particularly toward persons has been symbolized by Bogardus² in terms of the distance which one would want someone to keep from him.

¹ L. L. Thurston and E. J. Chave, *A Psychological Method and Some Experiments with a Scale for Measuring Attitudes toward the Church*. Chicago: University of Chicago Press, 1929.

² Emory S. Bogardus, "A Social Distance Scale," *Sociology and Social Research*, 17 (January-February 1933), 265-71.

Attitude has been defined³ in terms of three possible directions of movement. According to this view there is a tendency to move *toward*, *against*, or *away from* a person, object, or situation. The first is the *compliant* attitude, that of friendliness and willingness to cooperate or to do what one is told. The pupil goes gladly to school and likes the teacher and his school experiences. The second is the *aggressive* attitude, that of attack, opposition, and antagonism, implying dislike, *hostility*°, or even hatred. The pupil makes as much trouble for the teacher as he can. The third is the *detached* attitude, that of running away or *escape*°, implying dislike, *threat*°, *fear*°, and *anxiety*°. The pupil *rejects*° the teacher, skips school and plays *truant*°, or withdraws as much as possible from the situation — doesn't take part in class work or other activities, and perhaps finds satisfaction only in *fantasy*°.

How are attitudes acquired?

Our first basic principle can be stated quite simply:

(1) Attitudes are acquired. This statement, so far as education is concerned, refers to attitudes toward people, as well as toward ideas and propositions. People are not born Liberals or Conservatives, Moslems or Christians. They learn the attitudes of these groups because they happen to be brought up among them. There is nothing in the mechanisms of *heredity*° that will determine whether an infant will like or dislike hunting, baseball, or school — or lawyers, doctors, or school teachers. The experiences people have determine their attitudes. The processes by which experiences determine attitudes have been described in various ways, the most common terms used being *association*, *transfer*, *displacement*, and *conditioning*.

Association°. John Locke,⁴ one of the early British associationist philosophers, described the formation of negative attitudes as early as 1690:

Many children imputing the pain they endured at school to their books they were corrected for, so join those ideas together, that a book becomes their aversion, and they are never reconciled to the study and use of them all their

³ Karen Horney, *Our Inner Conflicts, A Constructive Theory of Neurosis*. New York: W. W. Norton and Co., 1945.

⁴ John Locke, *An Essay Concerning Human Understanding*. Philadelphia: Trostman and Hayes, 1850, p. 263.